

## **ABSTRACT OF THE DISCLOSURE**

System and method for policy-based decision-making using a combination of two or more inference approaches or techniques. Embodiments may provide a policy evaluation mechanism that evaluates policies using two or more inference techniques, including inference techniques that support “fuzzy” concepts, to generate a “yes/no” answer and a confidence level in the answer. In some embodiments, the policy evaluation mechanism may be a component of a decision engine that provides policy-based automation in a system or network environment. In one embodiment, a hierarchy of decision engines may be implemented that may include a central decision engine to administer system-wide policies and one or more local decision engines to administer component-level policies. Some embodiment may use a decision support language, such as FRIL (Fuzzy Relational Inference Language) or FRIL++, to express policy rules and to resolve uncertainty in policy rules using multiple AI inference techniques.